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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/665,286 | 09/22/2003 | Kiyotaka Sakai | 242257US2 | 5619 |
| 22850 | 7590 | 09/08/2005 | | EXAMINER |
| OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | BRASE, SANDRA L | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2852 | |
| DATE MAILED: 09/08/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-----------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/665,286 | SAKAI ET AL. | |
| | Examiner Sandra L. Brase | Art Unit 2852 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 16 June 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 1-37 is/are allowed.
- 6) Claim(s) 38-51 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>8/4/05</u> . | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Claim Objections

1. Claim 39 is objected to because of the following informality. Appropriate correction is required.

On line 2 of claim 39, “the metallic member” lacks proper antecedent basis, where it could be changed to “the means for regulating the developer is formed from a metallic member, wherein the metallic member”.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 38-41, 46, 47, 49 and 50 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishio et al. (US 5,220,129).

4. Nishio et al. (...129) disclose an image forming apparatus comprising: an electrophotographic image forming process cartridge for use in an image forming apparatus, comprising: a means (24) for carrying an image; a means (L) for forming a latent image on a surface of the means for carrying an image; and a means (28) for developing the latent image to form a toner image on the means for carrying the image, the means for developing comprising: a

means (28b) for carrying and conveying a developer; and a developer regulating member (46), comprising: means (46a) for regulating the developer carried and conveyed by the means for carrying and conveying the developer, the means for regulating the developer opposing a surface of the developer carrying and conveying means (28b) (figures 7 and 8), wherein the developer regulating member is formed from a metallic member and comprises a space that faces an inner surface of the metallic member, and the space extends in a direction perpendicular to a moving direction of the surface of the developer carrying and conveying means (col. 9, lines 3-7; col. 11, lines 55-60; and figure 8). The metallic member comprises a single metallic plate member (figure 8).

5. Claims 38-41, 46, 47, 49 and 50 are rejected under 35 U.S.C. 102(b) as being anticipated by Mizuno et al. (US 4,920,916).

6. Mizuno et al. (...916) disclose an image forming apparatus comprising: an electrophotographic image forming process cartridge for use in an image forming apparatus, comprising: a means (100) for carrying an image; a latent image is formed on the image carrier (col. 6, line 68 – col. 7, line 2), thus it is inherent that there is a means for forming a latent image on a surface of the means for carrying the image; and a means (K3) for developing the latent image to form a toner image on the means for carrying the image, the means for developing comprising: a means (10) for carrying and conveying a developer; and a developer regulating member (22), comprising: means for regulating the developer carried and conveyed by the means for carrying and conveying the developer (figure 13), the means for regulating the developer opposing a surface of the developer carrying and conveying means (10) (figures 12 and 13),

wherein the developer regulating member is formed from a metallic member and comprises a space that faces an inner surface of the metallic member, and the space extends in a direction perpendicular to a moving direction of the surface of the developer carrying and conveying means (col. 10, lines 20-23; and figures 12 and 13). The metallic member comprises a single metallic plate member (figure 13).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 42, 43, 45, 48 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishio et al. (US 5,220,129) in view of Kakimoto (US 6,377,769).

10. Nishio et al. (...129) disclose the features mentioned previously, but do not disclose the claimed cooling means. Kakimoto (...769) discloses a cooling means for cooling the developer

regulating member, and that contacts a portion of a developer regulating member, where it is obvious that any portion of the developer regulating member can be contacted with the cooling means (col. 4, lines 12-52). The cooling means is configured to supply a cooling gas around the developer regulating member (col. 4, lines 24-52). The cooling means includes a means for transferring heat from the developer regulating member, where the cooling means runs through a space along the developer regulating member (figures 1 and 2), and a means for dissipating heat from an end portion of the means for transferring heat (col. 4, lines 12-52). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the claimed cooling means, as disclosed by Kakimoto (...769), so as to cool the developer regulating means and thereby uniformize the temperature in the lengthwise direction thereof.

11. Claims 42, 43, 45, 48 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno et al. (US 4,920,916) in view of Kakimoto (US 6,377,769).

12. Mizuno et al. (...916) disclose the features mentioned previously, but do not disclose the claimed cooling device. Kakimoto (...769) discloses a cooling means for cooling a developer regulating member and that contacts a portion of a developer regulating member, where it is obvious that any portion of the developer regulating member can be contacted with the cooling medium (col. 4, lines 12-52). The cooling means is configured to supply a cooling gas around the developer regulating member (col. 4, lines 24-52). The cooling means includes a means for transferring heat from the developer regulating member and disposed such that the heat transferring means runs through a space along the developer regulating member (figures 1 and 2), and a means for dissipating heat from an end portion of the heat transferring means (col. 4,

lines 12-52). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the claimed cooling means, as disclosed by Kakimoto (...769), so as to cool the developer regulating means and thereby uniformize the temperature in the lengthwise direction thereof.

13. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishio et al. (US 5,220,129) in view of Kakimoto (US 6,377,769) as applied to claim 42 above, and further in view of Yamashita et al. (US 6,577,836).

14. Nishio et al. (...129) in view of Kakimoto (...769) disclose the features mentioned previously, but do not disclose the developing device including a cooling means including a cooling liquid. Yamashita et al. (...836) disclose a cooling means including a cooling liquid in a heat pipe (col. 11, lines 11-17). It would have been obvious to one of ordinary skill in the art to include a cooling liquid, as disclosed by Yamashita et al. (...836), since such a liquid provides high speed heat transport.

15. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno et al. (US 4,920,916) in view of Kakimoto (US 6,377,769) as applied to claim 42 above, and further in view of Yamashita et al. (US 6,577,836).

16. Mizuno et al. (...916) in view of Kakimoto (...769) disclose the features mentioned previously, but do not disclose the developing device including a cooling means including a cooling liquid. Yamashita et al. (...836) disclose a cooling means including a cooling liquid in a heat pipe (col. 11, lines 11-17). It would have been obvious to one of ordinary skill in the art to

include a cooling liquid, as disclosed by Yamashita et al. (...836), since such a liquid provides high speed heat transport.

Allowable Subject Matter

17. Claims 1-37 are allowed.

Response to Arguments

18. Applicant's arguments filed 6/16/05 have been fully considered but they are not persuasive.

Applicant argues that the means for regulating a developer of the prior art is not an equivalent to the means for regulating developer of claims 38, 46 and 49 of the current application, and the cooling means of the prior art is not an equivalent to the cooling means of claims 42, 48 and 51.

The means for regulating developer of Nishio et al. (US 5,220,129) is an equivalent means for regulating developer of the current application. The means for regulating developer of Nishio et al. (...129) performs the identical function specified in the claim in substantially the same way, that being regulating the thickness of a developer on a developer carrying member by contact with the developer, and produces the same results, that being obtaining a specified thickness of developer carried by the developer carrying member to a developing area.

The means for regulating developer of Mizuno et al. (US 4,920,916) is an equivalent means for regulating developer of the current application. The means for regulating developer of

Art Unit: 2852

Mizuno et al. (...916) performs the identical function specified in the claim in substantially the same way, that being regulating the thickness of a developer on a developer carrying member by contact with the developer, and produces the same results, that being obtaining a specified thickness of developer carried by the developer carrying member to a developing area.

The means for cooling the developer regulating means of Kakimoto (US 6,377,769) is an equivalent means for cooling the developer regulating means of the current application. The means for cooling the developer regulating means of Kakimoto (...769) performs the identical function specified in the claim in substantially the same way, that being cooling a developer regulating means by contact therewith, and produces the same results, that being cooling a developer regulating means.

Applicant is to note that as stated in M.P.E.P. 2184, “under no circumstances should an examiner accept as persuasive a bare statement or opinion that the element shown in the prior art is not an equivalent embraced by the claim limitation. Moreover, if an applicant argues that the “means” or “step” plus function language in a claim is limited to certain specific structural or additional functions (as opposed to “equivalents” thereof) where the specification does not describe the invention as being only those specific characteristics, the claim should not be allowed until the claim is amended to recite those specific structural or additional functional characteristics.”

Moreover, applicant is to note that the burden is placed on the applicant to show that a prior art element which performs the claimed function is not an equivalent of the structure, material, or acts disclosed in the specification. See *In re Mulder*, 716 F.2d 1542, 1549, 219 USPQ 189, 196 (Fed. Cir. 1983). M.P.E.P. 2184 states the following. “If the applicant disagrees

with the inference of equivalence drawn from a prior art reference, the applicant may provide reasons why the applicant believes the prior art element should not be considered an equivalent to the specific structure, material or acts disclosed in the specification. Such reasons may include by are not limited to: (A) teaching in the specification that particular prior art is not an equivalent; (B) teachings in the prior art reference itself that may tend to show non-equivalence; or (C) 37 CFR 1.132 affidavit evidence of facts tending to show nonequivalence.”

Final Rejection

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

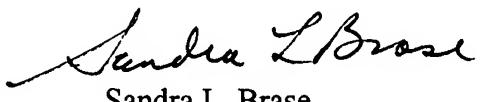
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra L. Brase whose telephone number is 571-272-2131. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur T. Grimley, can be reached on 571-272-2136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sandra L. Brase
Primary Examiner
Art Unit 2852

September 6, 2005